

REMARKS

Claims 1-20 remain pending in the application. Claims 1-20 currently stand rejected. The Applicant respectfully requests consideration of the following remarks and allowance of the claims.

Claims 1, 3-6, 9-11, 13-16, and 19-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of U.S. Pat. Application Publication No. 2004/0139168 to Tanaka et al. (Tanaka) in further view of Anidi et al. *Storage area networking – an introduction and future development trends*. (Anidi). The Applicant respectfully disagrees for at least the following reasons.

Claim 1 recites a data storage system comprising a first storage system at a customer premises, a second storage system, a third storage system, a bonded time division multiplex connection, and an internet protocol connection. The first storage system is configured to receive individual data files from a customer system, and on an individual file-by-file basis substantially in real time from receiving each of the individual data files, to determine individual file types for the individual data files and transfer the individual data files based on the individual file types determined for the individual data files. The second storage system is configured to receive and store the individual data files on the individual file-by-file basis, and to subsequently form blocks of data including the individual data files, and transfer the blocks of data. The third storage system is configured to receive and store the blocks of data to store the individual data files. The bonded time division multiplex connection is configured to transfer the individual data files from the first storage system to the second storage system on the individual file-by-file basis. The internet protocol connection is configured to transfer the blocks of data from the second storage system to the third storage system.

In the current Office Action, the Examiner asserts that AAPA discloses “a first storage system at a customer premises that is configured to receive individual data files from a customer system, and on an individual file-by-file basis substantially in real time from receiving each of the individual data files, to determine individual file types for the individual data files and transfer the individual data files based on the individual file types determined for the individual data files (NAS system 102, Specification Page 2 line 20 through Page 3 line 11); a second storage system configured to receive and store the

individual data files on the individual file-by-file basis (Local storage system 103, Specification Page 2 lines 22-24, Page 3 lines 6-11); a third storage system configured to receive and store the blocks of data to store the individual data files (Remote storage system 203, Specification Page 4 lines 2-6); and an internet protocol connection configured to transfer the blocks of data from the second storage system to the third storage system (Specification Page 4 lines 7-9 – note communication link 212 utilizing an internet protocol connection).” (07-29-2008 Office Action, pg. 2, line 18 – pg. 3, line 12.) The Applicant respectfully disagrees with the above assertion.

The AAPA contains two separate examples. The first example is illustrated in Figure 1 and is of customer premises 104 that contains NAS storage system 102. The NAS system 102 is connected to local storage system 103. The second example is illustrated in Figure 2 and is of customer premises 204 that contains SAN switch 202. The SAN switch 202 is connected to remote storage system 203. However, neither Figure 1 nor Figure 2 contain a data storage system that contains a first storage system at a customer premises, a second storage system, and a third storage system, as set forth in claim 1. In fact, both data storage systems 100 and 200 each contain only two storage systems. Additionally, in Figure 2 communication link 212 may use an internet protocol, but Figure 2 only depicts two storage systems. Thus, SAN switch 202 transfers data files to remote storage system 203 over communication link 212, however communication link 212 is not configured to transfer blocks of data from a second storage system to a third storage system, as set forth in claim 1.

Additionally, in the current Office Action, the Examiner admits that “AAPA fails to explicitly disclose a storage system receiving individual data files and subsequently forming blocks of data including the individual data files, and transferring the blocks of data.” (07-29-2008 Office Action, pg. 2, lines 18-21.) However, the Examiner then asserts that Tanaka teaches the above limitation in paragraph [0008]. (07-29-2008 Office Action, pg. 2, lines 21-24.) The Applicant respectfully disagrees with the above assertion.

In FIG. 3, Tanaka discloses a SAN/NAS integrated storage system comprised of a host computer 300, a file server 310, and a storage system 340. (Tanaka, para. [0008], lines 1-3.) Furthermore, Tanaka teaches that “[t]he user or application exists on the side

of the host computer 300 and issues a data access request via a network or Ethernet port 305 to the file server 310 which manages files. The file server 310 manages data (files) to be used by the user or application, and issues a data (blocks) read/write request to a disk 160, 161. At this time, the *file server 310 converts file information into block information.*” (emphasis added) (Tanaka, para. [0008], lines 4-10.) Therefore, Tanaka cannot teach that storage system 340 is configured to receive and store the individual data files on the individual file-by-file basis, and to subsequently form blocks of data including the individual data files, and transfer the blocks of data, as set forth in claim 1, since in Tanaka file server 310 converts file information into block information and not storage system 340.

Furthermore, in the current Office Action, the Examiner asserts that Anidi “teaches a bonded time division multiplex connection is configured to transfer the individual data files from the first storage system to the second storage system on the individual file-by-file basis (Section 3.1).” (07-29-2008 Office Action, pg. 4, lines 1-3.) The Applicant respectfully disagrees with the above assertion.

Anidi discloses that synchronous digital hierarchy (SDH) is optimized for time division multiplexing and that SDH may offer better capabilities for supporting broadband client data services. (Anidi, pg. 52, section 3.1.) Furthermore, Anidi discloses that two development trends in the use of the SDH model include virtual concatenation (VC) and generic framing procedure (GFP). (Anidi, pg. 52, sections 3.1, 3.1.1, and 3.1.2.) However, Anidi does not teach that VC and GFP utilize a bonded time division multiplex connection configured to transfer the individual data files from the first storage system to the second storage system on the individual file-by-file basis, as set forth in claim 1.

Thus, AAPA, Tanaka, and Anidi, individually and in combination, fail to teach or suggest all of the limitations set forth in claim 1. Furthermore, the Examiner has failed to present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the limitations recited in claim 1 to have been obvious in light of the teachings of AAPA, Tanaka, and Anidi. As such, the Examiner has failed to present a prima facie case of obviousness and the present rejection should be withdrawn.

Accordingly, the Applicant believes that claim 1 is allowable over the prior art of record and respectfully requests such action at the Examiner's earliest convenience.

Independent claim 11 recites limitations similar to those of claim 1 and, therefore, is respectfully considered allowable over the prior art of record for similar reasons as discussed above. Additionally, although additional reasons for allowance exist, in the interest of brevity and clarity, the Applicant refrains from discussion of dependent claims 3-6, 9-11, 13-16, and 19-20 in view of their dependence from otherwise allowable independent claims 1 or 11.

Claims 2 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA, Tanaka, and Anidi in view of U.S. Pat. Application Publication No. 2002/0155984 to Padovano et al. Although additional reasons for allowance exist, in the interest of brevity and clarity, the Applicant refrains from discussion of dependent claims 2 and 12 in view of their dependence from otherwise allowable independent claims 1 or 11.

Claims 7-8 and 17-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA, Tanaka, and Anidi in view of U.S. Pat. Application Publication No. 2003/0115204 to Greenblatt et al. Although additional reasons for allowance exist, in the interest of brevity and clarity, the Applicant refrains from discussion of dependent claims 7-8 and 17-18 in view of their dependence from otherwise allowable independent claims 1 or 11.

CONCLUSION

Based on the above remarks, the Applicant respectfully submits that claims 1-20 in their present form are allowable. Additional reasons in support of patentability exist, but such reasons are omitted in the interests of clarity and brevity. The Applicant respectfully requests allowance of the claims at the Examiner's earliest convenience.

The Applicant believes no fees are due with respect to this filing. However, should the Office determine fees are necessary, the Office is hereby authorized to charge Deposit Account No. 21-0765.

Respectfully submitted,

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